

## WHAT IS CLAIMED:

1. A laminable photochromic element comprising a photochromic layer comprising a polyester urethane binder and a photochromic compound, the photochromic layer adhered to one surface of a polymeric layer comprising a polycarbonate resin or a polysulfone resin.
2. The laminable photochromic element of claim 1 wherein the photochromic layer is sandwiched between two polymeric layers, each of the polymeric layers comprising a polymer selected from the group consisting of polycarbonate resin and polysulfone resins.
3. The laminable photochromic element of claim 2 consisting of three layers comprising the photochromic layer and the two sandwiching layers comprising a polymer selected from the group consisting of polycarbonate resin and polysulfone resins.
4. The laminable photochromic element of claim 2 fused to a polymeric surface.
5. The laminable photochromic element of claim 2 adhesively secured to a polymeric surface.
6. The laminable photochromic element of claim 4 wherein the polymeric surface comprises an ophthalmic lens.
7. The laminable photochromic element of claim 5 wherein the polymeric surface comprises an ophthalmic lens.
8. The laminable photochromic element of claim 1 wherein the polymeric layer comprises a polycarbonate resin or a polysulfone resin with a first surface and a second surface, the polyester urethane is contiguous to the first surface of the

polymeric layer and to a functional layer selected from the group consisting of scratch resistant layers, anti-fogging layers, tint layers, and hydrophobic layers.

9. The laminable photochromic element of claim 2 wherein the polymeric layer comprises a polycarbonate resin or a polysulfone resin with a first surface and a second surface, the polyester urethane is contiguous to the first surface of the polymeric layer and to a functional layer selected from the group consisting of scratch resistant layers, anti-fogging layers, tint layers, and hydrophobic layers.

10. The laminable photochromic element of claim 7 wherein the polymeric layer comprising a polycarbonate resin or a polysulfone resin with a first surface and a second surface, the polyester urethane contiguous to the first surface of the polymeric layer and a functional layer selected from the group consisting of scratch resistant layers, anti-fogging layers, tint layers, and hydrophobic layers.

11. A method of forming a photochromic element according to claim 1 comprising forming a mixture by mixing the photochromic compound with the polyester urethane, forming a dry film of the mixture, then securing the dry film to the polymeric layer.

12. A method of forming a photochromic element according to claim 2 comprising forming a mixture by mixing the photochromic compound with the polyester urethane, forming a dry film of the mixture, then sandwiching the dry film between the two polymeric layers.

13. A method of forming a multi-layer polymeric photochromic article comprising securing the laminable article of claim 1 to a polymeric article.

14. A method of forming a multi-layer polymeric photochromic article comprising laminating a polymeric layer of the laminable article of claim 2 to a polymeric article.

15. A method of forming a multi-layer polymeric photochromic article comprising laminating a polymeric layer of the laminable article of claim 3 to a polymeric article.

5

16. A method of forming a multi-layer polymeric photochromic article comprising laminating a polymeric layer of the laminable article of claim 4 to a polymeric article.

10

17. A method of forming a multi-layer polymeric photochromic article comprising laminating a polymeric layer of the laminable article of claim 5 to a polymeric article.

15

18. A method of forming a multi-layer polymeric photochromic lens comprising laminating a polymeric layer of the laminable article of claim 6 to a polymeric article.

20

19. A method of forming a multi-layer polymeric photochromic lens comprising laminating a polymeric layer of the laminable article of claim 7 to a polymeric article.

20. A method of manufacturing an ophthalmic lens with photochromic properties comprising:

25

providing a photochromic element comprising at least two layers of polymeric material comprising a) a first polymeric layer containing at least 0.05% by weight of photochromic material and b) at least one second polymeric layer comprising a polycarbonate or polysulfone resin;

placing said photochromic element within a shaping environment;

providing a hardenable composition adjacent to said photochromic

30

element while the photochromic element is within the shaping environment,

and shaping the hardenable polymeric composition within said shaping environment; and

hardening said hardenable polymeric composition within said shaping environment to form the ophthalmic lens.

5

21. The method of claim 20 wherein said shaping environment is a mold.

22. The method of claim 21 wherein said mold is an injection molding mold.

10

23. The method of claim 22 wherein said photochromic element comprises at least three polymeric layers comprising a) a first polymeric layer comprising a polyester urethane containing at least 0.05% by weight of photochromic material and b) at least a second polymeric layers and a third polymeric layer, with the second and third polymeric layers sandwiching the photochromic layer, each of the second and third polymeric layers comprising polycarbonate resin or polysulfone resin.

15

24. The method of claim 21 wherein said photochromic element is pre-shaped to a form that corresponds to a geometry similar to that of the shaping environment and the geometry is other than flat.

20

25. The method of claim 22 wherein said photochromic element is pre-shaped to a form that corresponds to a geometry similar to that of the shaping environment and the geometry is other than flat.

25

26. The method of claim 23 wherein said photochromic element is pre-shaped to a form that corresponds to a geometry similar to that of the shaping environment and the geometry is other than flat.

30

27. The method of claim 20 wherein said second polymeric composition comprises a polycarbonate resin.

28. The method of claim 20 wherein said hardenable composition comprises a polysulfone composition.